

Amendments to the Specification:

Please replace the paragraph beginning at page 7, line 19, with the following rewritten paragraph:

Filter element 22 is positioned in a fluid pathway between the liquid entering through inlet 18 and exiting through outlet 20. Additionally, filter element 22 can partition interior chamber 14 into a liquid entering region 28 and a liquid exiting region 30. Filter element 22 is provided in the form of any known and commercially available filter material. Examples of a material that can be used as a filter element include paper (cellulose), cloth, polyester, wire mesh, plastic mesh, gradient density melt-blown polymeric materials, and the like. In the illustrated embodiment, filter element 22 is provided as a cylindrical sleeve formed of a pleated sheet of filter material. The cylindrical sleeve defines a centrally-located axis 23. On either end of the cylindrical sleeve, filter element 22 is supported within interior chamber 14 with a first and second filter endcaps 31 and ~~33~~ 32 to provide a fluid-tight seal. Consequently, a liquid flowing through filter assembly 10 must pass through filter 22 to flow from entering region 28 to exiting region 30.

Please replace the paragraph beginning at page 8, line 8, with the following rewritten paragraph:

Referring additionally to FIG. 3, which is a partial view in full section of the lower portion of filter assembly 10, container 24, Figs. 1, 2, is positioned inside interior chamber 14. A liquid additive 25 can be deposited in the interior chamber 14. In the illustrated embodiment, container 24 is disposed between the closed end 27 of outer casing 12 and the lower endcap 32 of filter element 22. Biasing element 26, which is illustrated as a circular spring, biases container 24 against the lower endcaps 32 of filter element 22, and, consequently, forces endcap ~~3~~ 31 of filter element 22 against nut plate 16 or a seal disposed therebetween.

Please replace the paragraph beginning at page 9, line 25, with the following rewritten paragraph:

In the preferred embodiment, the difference in liquid density and the additive density can be utilized to achieve a more uniform release rate over time. (~~See below, FIG. 14.~~) Generally, the liquid additive is denser than the liquid flowing through the filter assembly (regardless whether the liquid is organic or aqueous based). Consequently, the filtered liquid tends to "float" on the additive phase, and the inlet tube is truncated near the top of the additive vessel, whereas the outlet capillary extends to near the bottom of the vessel. During operation, the liquid enters the inlet vessel, floats, and remains (largely, with exception of the slow diffusion between phases) at the top of the vessel or layered on the liquid additive. As more of the liquid enters through the inlet vessel, the entering liquid displaces pure additive and pushing it out the outlet tube in nearly full-concentration yielding a very steady injection of active ingredient into the system.

Please replace the paragraph beginning at page 10, line 17, with the following rewritten paragraph:

In an alternative embodiment (~~see FIG. 14~~), capillary tube 54 provides an exit for the liquid and additive in interior region 40 to flow to exiting region 30. In this embodiment, capillary tube 54 provides direct fluid communication for a liquid and/or an additive mixture in interior region 40 and exiting region 30 and, ultimately, to outlet 20. Consequently, in this embodiment, the liquid and additive in interior region 40 can bypass filter element 22. This embodiment would offer a high gradient pressure, since the restriction of the filter element is now added to the dynamic pressure gradient (P_{dyn}). This embodiment can provide particular advantages, for example, for injecting a very viscous additive into the system. Additionally, if desired a small filter, such as a sintered porous plug, wire-mesh screen, or the like, can be included on the outlet tube to prevent any large particles that have bypassed the filter from causing damage to downstream components.

Please replace the paragraph beginning at page 13, line 30, with the following rewritten paragraph:

FIG. 4 is a graph illustrating the dynamic fluid pressure predicted by a computational fluid dynamics (CFD) model at varying axial positions within a filter [all points taken at radial position midway in gap between filter shell ID (12) filter element pleat OD (22)]. The graph indicates that the fluid dynamic pressure is greatest near the top of the filter element endcap 31 where the axial velocity is highest. The dynamic pressure below the top endcap begins to diminish since the axial velocity decreases as fluid is carried inward through the filter. The y-axis on the graph is the CFD-predicted dynamic fluid pressure, in Kpa. The x-axis corresponds to the axial position in the filter measured with respect to the filter element at which the dynamic fluid pressure was reported via CFD. In the graph illustrated in FIG. 4, the bottom endcap of the filter element is at 0.1m and the top is at -0.225m. The absolute value of the dynamic fluid pressure within the filter can vary depending upon a variety of factors that affect flow velocity in the gap between filter and housing, including: the overall length of the filter housing and/or filter element, the size of gap (annulus area) between the filter element and housing shell, the overall length of the filter housing and/or filter element, the configuration of the filter element (number of pleats, outer diameter of pleats, inner diameter of pleats, media thickness), the flowrate or volume of liquid flowing through the filter casing and/or filter element, and the density of the flowing liquid. The dynamic pressure, P_{dyn} , can be calculated according to Equation 1:

$$P_{dyn} = 1/2 \times \text{density} \times \text{velocity}^2 \quad (1)$$

where density is the liquid density and velocity is the velocity of the liquid flowing through the filter.

Please replace the paragraph beginning at page 16, line 29, with the following rewritten paragraph:

In addition, the rate that liquid enters into container 24 can be varied. Increasing the pressure differential between entrance port 42 ~~of~~ and exit port 44 will induce a more rapid in-flow and escape of the liquid and additive mixture from the interior region 40 of container 24. Extending end 49 of capillary tube 48 closer to inlet 18 can increase the dynamic pressure.

Similarly, end-~~55~~ 45 of capillary tube 54 in an area at lower pressure such that proximate to exiting region 30 can decrease the dynamic fluid pressure at exit port 44.

Please replace the paragraph beginning at page 18, line 5, with the following rewritten paragraph:

FIG. 9 is a sectional view of the container illustrated in FIG.~~5~~ 8 taken along section line 99. It can be seen in the illustration that container 92 contains a partition 102 provided substantially as a spiral wall ~~106~~ that defines a curving pathway~~108~~ 104 coursing through interior region 96. In a preferred embodiment, partition 102 is provided as a solid portion or wall portion extending the full depth of container 92, i.e., from the upper surface 110, Fig. 8, to the lower surface 112. In other embodiments, partition 102 need not extend the full depth of container 92 but may be attached to either upper surface 110 or lower surface 112 or even as an unattached or secure insert within the interior of container 92. In still other embodiments, partition 102 need not be a solid wall or an imperforate structure but can include openings and/or voids.

Please replace the paragraph beginning at page 18, line 29, with the following rewritten paragraph:

Referring additionally to FIG. 11, it can be seen that the first capillary tube 116 is located proximate to the internal wall portion 118 of container 115. In this embodiment, outlet 122 is centrally located in the upper wall 129, Fig. 10, of container 115 and therefore spaced from first capillary tube 116.

Please replace the paragraph beginning at page 20, line 6, with the following rewritten paragraph:

In this embodiment, the liquid enters container 134 through capillary tube 140. Since the liquid typically is less dense~~then~~ than the additive in container 134, the liquid will first layer on top of the additive and force substantially pure additive out through capillary tube 140 and into the portion of the liquid flowing through the exiting region 30.

Please replace the paragraph beginning at page 20, line 18, with the following rewritten paragraph:

FIG. 15 is still yet another embodiment of a filter assembly 150. Filter assembly 150 can be provided substantially as has been described for filter assemblies 10, 70, 90 and 130. Consequently, like reference numbers will be used to denote like components. Filter assembly 150 includes a container 152 in an interior chamber 154. Capillary tube 156 provides an inlet into the interior region 158 of container 152. In this embodiment, capillary tube 156 extends in a direction parallel to and substantially along the entire length of filter element 22. Upper endcap ~~158~~ 159, shown in an enlarged view in FIG. 16, includes a shroud 160 that extends downwardly and in a radially direction toward the upper end 162 of capillary tube 156.

Please replace the paragraph beginning at page 20, line 26, with the following rewritten paragraph:

In this embodiment, the endcap shroud ~~161~~ 160 cooperates with filter shell 164 to somewhat constrict the flow and hence increase the velocity in close proximity to entrance of capillary tube 158. This in turn increases the dynamic fluid pressure at end 162. Consequently, the pressure difference between the entrance and exit from container 152 is greater than would be observed if the fuel were not constricted between filter endcap shroud and shell.